

VistA Scheduling Enhancements (VSE)

Deployment, Installation, Backout, and Rollback Guide (DIBR)

**for VS GUI Release 1.7.7.4
with Associated VistA Patch SD*5.3*785**



June 2021

Version 1.2

Department of Veterans Affairs (VA)

Office of Information and Technology (OIT)

Revision History

Date	Version	Description	Author
06/28/2021	1.2	Increment update to 1.7.7.4	Liberty ITS
06/22/2021	1.1	Increment update to 1.7.7.1	Liberty ITS
06/03/2021	1.0	Sent for review/approval	Liberty ITS
05/27/2021	0.1	Baseline for VS GUI R1.7.7 and SD*5.3*785	Liberty ITS

Artifact Rationale

This document describes the deployment, installation, backout, and rollback plan for new products going into the VA Enterprise. The plan includes information about system support, issue tracking, escalation processes, and roles and responsibilities involved in all those activities. Its purpose is to provide clients, stakeholders, and support personnel with a smooth transition to the new product or software, and should be structured appropriately, to reflect particulars of these procedures at a single or at multiple locations.

Per the Veteran-focused Integrated Process (VIP) Guide, the deployment, installation, backout, and rollback plan is required to be completed prior to Critical Decision Point #2 (CD2), with the expectation that it will be updated throughout the lifecycle of the project for each build, as needed.

Table of Contents

1.	Introduction	1
1.1.	Purpose	1
1.2.	Dependencies	1
1.3.	Constraints	1
2.	Roles and Responsibilities	1
3.	Deployment.....	2
3.1.	Timeline.....	2
3.2.	Site Readiness Assessment	3
3.2.1.	Deployment Topology (Targeted Architecture)	3
3.2.2.	Site Information (Locations, Deployment Recipients).....	3
3.2.3.	Site Preparation.....	3
3.3.	Resources.....	3
3.3.1.	Hardware	3
3.3.2.	Software	4
3.3.3.	Communications	4
3.3.3.1.	Deployment/Installation/Backout/Rollback Checklist.....	4
4.	Installation	5
4.1.	Pre-installation and System Requirements.....	5
4.2.	Platform Installation and Preparation	5
4.3.	Download and Extract Files	5
4.4.	Database (DB) Creation	5
4.5.	Installation Scripts	5
4.6.	Cron Scripts	6
4.7.	Access Requirements and Skills Needed for the Installation	6
4.8.	Installation Procedures	6
4.9.	Installation Verification Procedures	6
4.10.	System Configuration	6
4.11.	DB Tuning.....	6
5.	Backout Procedures.....	6
5.1.	Backout Strategy	7
5.2.	Backout Considerations.....	7
5.2.1.	Load Testing.....	7
5.2.2.	User Acceptance Testing (UAT).....	7
5.3.	Backout Criteria	7

5.4. Backout Risks	7
5.5. Authority for Backout	8
5.6. Backout Procedures	8
5.7. Backout Verification Procedures	8
6. Rollback Procedures.....	8
6.1. Rollback Considerations	8
6.2. Rollback Criteria	9
6.3. Rollback Risks	9
6.4. Authority for Rollback	9
6.5. Rollback Procedures.....	9
6.6. Rollback Verification Procedures	9
A. Acronyms and Abbreviations	10

Table of Figures

Figure 1: VistA Scheduling Desktop Shortcut.....	8
--	---

Table of Tables

Table 1: Dependencies.....	1
Table 2: DIBR Roles and Responsibilities	1
Table 3: Key Communication Items.....	4
Table 4: Deployment, Installation, Backout, and Rollback Checklist	4
Table 5: Acronyms and Abbreviations.....	10

1. Introduction

This DIBR Guide describes how to deploy, install, back out and roll back Release 1.7.7.4 of the Veterans Health Information System and Technology Architecture (VistA) Scheduling (VS) Graphical User Interface (GUI) and associated patch(es).

1.1. Purpose

The purpose of this plan is to provide a single, common document that describes how, when, where, and to whom VS GUI Release 1.7.7.4 will be deployed and installed. It describes how it is to be backed out and rolled back, if necessary.

1.2. Dependencies

[Table 1](#) details the VistA Patch dependency(ies) for VS GUI Release 1.7.7.4.

Table 1: Dependencies

Patch	Application	Purpose/Need
SD*5.3*785	VS GUI	Install prior to deploying the GUI update

1.3. Constraints

VS GUI Release 1.7.7.4 is a local installation executable designed to run on Windows platforms. It functions by connecting to a single VistA instance. Installers must have Administrative privileges for the appropriate location for installation.

Depending upon which user model a site uses, possible installation locations for VS GUI Release 1.7.7.4 are:

1. The local desktop
2. The Citrix Access Gateway (CAG) desktop
3. The GoldStar Virtual Machine (VM)

There are no additional security or access requirements for installation to a Windows environment.

2. Roles and Responsibilities

Deployment and installation activities are performed by representatives from the teams listed in [Table 2](#).

Table 2: DIBR Roles and Responsibilities

Team	Phase/Role	Tasks
VSE Project Manager (PM)	Deployment	Plan and schedule deployment (including orchestration with vendors)
Test Sites	Production Testing	Test for operational readiness and provide concurrence

Team	Phase/Role	Tasks
Team Liberty Release Manager	Deployment	Ensure the collection of all VIP artifacts required for deployment
VSE Implementation Manager (IM)	Deployment	Confirm project is ready for national release
Regional Enterprise Service Line (ESL) Staff (Former Regional OIT Staff)	Installation	Regional ESL staff will install the associated patches that pair with the VS GUI. In some instances, they may install the VS GUI on users' Desktops as well
Enterprise Services Engineering (ESE) and Desktop Device Engineering Client Services Group	Installation	Prepare the Systems Center Configuration Manager (SCCM) package for VS GUI installation
Office of Veteran Access to Care (OVAC)	Installation	Coordinate training

3. Deployment

Deployment of VS GUI Release 1.7.7.4 with associated patch SD*5.3*785 is planned as a national release. The GUI installation package is deployed either via the SCCM process or updates to application files and shortcuts in each site's VistA Consolidated Servers (VACS) location. The GUI will be available in [SOFTWARE](#) repository for installation into the sites' VACS folder, while the associated VistA patch for Legacy VistA is deployed via FORUM. Load time will vary by location, ranging from minutes to a few hours. Information Technology Operations and Service (ITOPS) provides deployment support to the local sites.

The VSE schedule with milestones for the deployment can be found on the [VSE PMO SharePoint site](#).¹

3.1. Timeline

The plan for deployment and installation is for the sites to coordinate with the regional ESL team and the SCCM deployment team.

The deployment and installation should be done during off hours. Please select 'No' if prompted to DISABLE scheduling functions, menu options, and protocol. Please see the VistA patch description for patch deployment and installation instructions.

The deployment and installation are scheduled to run for approximately ten (10) business days, as detailed in the national release Action Item email. The GUI update and associated patch(es) should be installed in the PreProduction environment first. Once the sites have successfully installed and deployed the software in their PreProduction environments and user desktops, sites should begin installing the software in its Production environment.

¹ Access to the VSE PMO SharePoint site is restricted and must be requested.

3.2. Site Readiness Assessment

All field locations will receive the GUI installation package via the SCCM process or VACS and the associated VS patch(es) from FORUM.

3.2.1. Deployment Topology (Targeted Architecture)

The VS GUI Release 1.7.7.4 package consists of both VistA Massachusetts General Hospital Utility Multi-Programming System (MUMPS or M) code and Windows workstation .msi installation files.

The installation .msi is used to install the Windows executable for the VS GUI. It is automatically installed via SCCM on each end user's workstation, or installed into a sites VACS folder. The distribution of access to the executable is the responsibility of OIT leadership at the VistA parent facility. It is strongly recommended that the executable be physically installed on each workstation to prevent errors arising from launching the application from an executable on a shared location.

3.2.2. Site Information (Locations, Deployment Recipients)

Site information, such as the Internet Protocol (IP) address, port number, and namespace of the Production environment, will differ at each VistA instance. Local site OIT personnel, working with local scheduling representatives, will determine the recipients of the VS GUI software. The expectation is that the VS GUI software will be deployed on all scheduling representatives' workstations at each facility.

3.2.3. Site Preparation

The VS GUI Release 1.7.7.4 Version Description Document (VDD) and SD*5.3*785 Patch Description include a list of required patches and a summary of the installation order and will prepare each site for installation. Patches are released on the same day and in the installation order stated in the patch descriptions.

3.3. Resources

There will be a daily Initial Operating Capability (IOC) call set up for sites conducting IOC testing to support the personnel who are testing the product, should they encounter installation/deployment issues. If a site experiences issues during deployment, they should contact the VA Enterprise Service Desk (ESD) and submit a ServiceNow (yourIT) ticket to the work group **VSE GUI T3**. Once submitted, the VSE project team is alerted, and will then be able to provide targeted troubleshooting support during the daily IOC call.

Supporting documentation for VS GUI Release 1.7.7.4 is available on the VA Software Document Library (VDL).

3.3.1. Hardware

There are no required changes to hardware for the VS GUI to function at each site.

3.3.2. Software

The VS GUI application has a dependency on Microsoft’s (MS) .NET Framework version 4.0. Each workstation running the application must have version 4.0 or higher to run the VS GUI application.

3.3.3. Communications

The primary objective of the communication plan is to ensure timely dissemination of information across the Integrated Project Team (IPT) and stakeholders. Communication ensures schedules are aligned and project milestones are met.

Project milestones are shared with VA executives and external organizations. The goal is to notify the right audience at the right time, using the appropriate communication method(s).

[Table 3](#) identifies key communication items, a description of each, the initiator/owner of each item, the intended audience, and the method(s) used to disseminate information.

Table 3: Key Communication Items

Key Communication	Goal/Description	Initiator/Owner	Audience	Communication Method(s)
Installation instructions and support	Provide site requirements, instructions, and installation support	OIT	IT/Operation site managers	Daily calls during IOC testing, monitor installations by site up to the compliance date
Deployment schedule	Identify key dates and milestones by site	OIT	IPT and stakeholders	Daily calls during IOC testing, monitor installations by site up to the compliance date
Training	Communicate status of training development, who is being trained, and when	OVAC	IPT and stakeholders	OVAC SharePoint site, daily deployment calls, deployment schedule

3.3.3.1. Deployment/Installation/Backout/Rollback Checklist

[Table 4](#) details the DIBR checklist items.

Table 4: Deployment, Installation, Backout, and Rollback Checklist

Activity	Day	Time	Individual who completed task
Deploy	TBD	< 5 minutes	VSE PM
Install	TBD	< 5 minutes	Regional ESL Staff (Former Regional OIT Staff)

Activity	Day	Time	Individual who completed task
Backout	TBD	< 5 minutes	Regional ESL (Former Regional OIT Staff)
Rollback	TBD	< 5 minutes	Regional ESL (Former Regional OIT Staff)

4. Installation

The following subsections provide installation details.

4.1. Pre-installation and System Requirements

The following pre-installation conditions must be met prior to the deployment of VS GUI Release 1.7.7.4:

- All facilities deploying the updated VS GUI release have a fully patched VistA account
- Patch(es) associated with the updated VS GUI release are installed by the compliance date
- ESE has provided the SCCM package needed for the updated VS GUI release
- OVAC has provided a training plan prior to the deployment date
- The target workstations must have MS .NET Framework 4.0, or higher, installed
- Any previous version of VS GUI must be fully uninstalled from the control panel

4.2. Platform Installation and Preparation

There are no required changes to hardware or software for the updated VS GUI to function at each site.

4.3. Download and Extract Files

The procedures for downloading and extracting files for the installation of the updated VS GUI are unchanged from earlier releases.

Once the VS GUI .msi installation package has been downloaded and a workstation or VM has been targeted for installation, the .msi is launched by double-clicking the file and following the installation wizard. The installation wizard will prompt the installer for the target VistA host/IP, port, and namespace.

4.4. Database (DB) Creation

Not applicable to the installation of the updated VS GUI.

4.5. Installation Scripts

There are no installation scripts. Follow the instructions provided in the SD*5.3*785 Patch Description.

4.6. Cron Scripts

Not applicable to the installation of the updated VS GUI.

4.7. Access Requirements and Skills Needed for the Installation

The installer must have the authority and access to install VistA patches and GUI software. The installer must have Administrative access to the target workstation to run the .msi installation package, at a minimum.

4.8. Installation Procedures

Follow the instructions provided in the SD*5.3*785 Patch Description.

4.9. Installation Verification Procedures

Verify the installation of the updated VS GUI by:

1. Ensuring that users can access the system
2. Ensuring that users see the correct version number displayed on the login screen
3. Confirming that users can access the newly installed software
4. Verifying that the application works as expected

4.10. System Configuration

There are no system configuration changes needed.

4.11. DB Tuning

Not applicable to the installation of the updated VS GUI.

5. Backout Procedures

Installers with Administrative access can back out the installation process manually by following these steps:

1. Click Control Panel
2. Click Programs
3. Click the Uninstall Program link
4. Find VistA Scheduling GUI
5. Right-click VistA Scheduling GUI
6. Select Uninstall

Schedulers who have the VS GUI application installed on their desktops and want it removed should follow the software removal procedures set by their local facility. This may include submitting a ServiceNow (yourIT) ticket to the VA ESD.



NOTE: Please review the specific patch description for a VistA patch for backout instructions.

5.1. Backout Strategy

The backout strategy is to uninstall the currently deployed VS GUI application and restore the previously deployed version of the VS GUI application.

5.2. Backout Considerations

Following are checkpoints to consider when determining if the software needs to be backed out:

- The software functionality has been validated in PreProduction (Mirror/Test) environment at the IOC sites
- The software was validated in the PreProduction environments at the VA Medical centers prior to installation in Production
- The associated patch installations were conducted in the proper sequence
- The patch description was reviewed to verify that the software was installed correctly
- The patch description and/or the User Guide were used to determine if the software is functioning properly

5.2.1. Load Testing

Not applicable to the installation of the updated VS GUI.

5.2.2. User Acceptance Testing (UAT)

UAT is performed by OIT personnel during IOC testing to ensure the patch and/or updated GUI does not interfere with normal system operations. UAT begins in the PreProduction environment with a copy of the existing Production system, but with only test users and a deidentified DB for testing purposes.

When the site has completed its testing and any identified issues have been resolved, the code is moved to the Production environment and is monitored closely to see if there is any degradation in the functionality. Once any identified issues have been resolved, the application passes UAT and is approved for National Release.

5.3. Backout Criteria

If, in the process of testing either in the test or Production environments, the functionality, performance, or usability of the application falls below the minimum standard necessary to provide care to Veterans, site management may decide to back the application out. This step is never taken lightly and is only taken if it is believed that the care and treatment of Veterans will be compromised.

5.4. Backout Risks

The following are the risks of backing out the VS GUI:

- Previous versions of the GUI may not remove all associated files and remains under the Add/Remove section of Windows
- Functionality that was added to the application in the new release will be removed
- Fixes that the new release resolved will be removed

- The status of some patient appointments may require manual fixes at the programmer level
- If the backout was authorized due to a data problem, there is a potential that patient data could be compromised

5.5. Authority for Backout

The authority to determine the necessity for a backout and the approval of a backout varies by location.

5.6. Backout Procedures

The VS GUI can be backed out (uninstalled) using the following procedures:

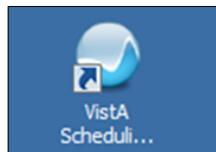
1. Click Control Panel
2. Click Programs
3. Click the Uninstall Program link
4. Find VistA Scheduling GUI
5. Right-click VistA Scheduling GUI
6. Select Uninstall

To continue using the application, install the previous version of the VS GUI by using the previous installation instructions for that specific release.

5.7. Backout Verification Procedures

Once the update has been backed out, the icon for the VistA Scheduling shortcut ([Figure 1](#)) will be removed from the previous location.

Figure 1: VistA Scheduling Desktop Shortcut



6. Rollback Procedures

Appointed site staff can run the standard patch removal tool to back out the patch(es). If a site determines that a roll back is required, a ServiceNow ticket should be registered with the VA ESD for assistance with a rollback.

6.1. Rollback Considerations

Following are checkpoints to consider when determining if the software needs to be rolled back:

- Conduct a check of the Transport Global backup
- Validate the checksum(s)
- Check ServiceNow for the submission of previous VA ESD ticket resolutions

6.2. Rollback Criteria

The criterion for rolling back to the previous version of the VS GUI is that the application is not performing as expected.

6.3. Rollback Risks

The following are the risks of rolling back to the previous version:

- Previous versions of the GUI may not remove all associated files and remains under the Add/Remove section of Windows
- Functionality that was added to the application in the new release will be removed
- Fixes that the new release resolved will be removed
- The status of some patient appointments may require manual fixes at the programmer level
- If the backout was authorized due to a data problem, there is a potential that patient data could be compromised
- Data changes to files cannot be rolled back and will need to be made via a new patch and post install-routine

6.4. Authority for Rollback

The decision to roll back the VS GUI is reached mutually among various stakeholders.

6.5. Rollback Procedures

Once approval for a rollback has been obtained, follow the procedures detailed below to roll back to the previous version of the product.

Locate the results from your site's Transport Global backup, done prior to installing the patches. The Transport Global backup creates a record of any routines exported with the installed patches. It will not back up any other changes, such as Data Dictionaries (DD) or templates.

6.6. Rollback Verification Procedures

Once the rollback is complete, the OIT programmer should manually verify that the GUI and VistA patch rollback was successful. Verification is performed by opening the application and having the user ensure that the application is performing as expected. When rollback is complete, validate the previous version of the GUI displays.

A. Acronyms and Abbreviations

Table 5 details acronyms and abbreviations used in this document.

Table 5: Acronyms and Abbreviations

Acronym	Definition
CAG	Citrix Access Gateway
CD2	Critical Decision Point #2
DB	Database
DD	Data Dictionaries
DIBR	Deployment, Installation, Backout and Rollback
ESD	Enterprise Service Desk
ESE	Enterprise Services Engineering
ESL	Enterprise Service Line
GUI	Graphical User Interface
IM	Implementation Manager
IOC	Initial Operating Capability
IP	Internet Protocol
IPT	Integrated Project Team
ITOPS	Information Technology Operations and Service
MS	Microsoft
MUMPS or M	Massachusetts General Hospital Utility Multi-Programming System
OIT	Office of Information and Technology
OVAC	Office of Veteran Access to Care
PM	Program Manager or Project Manager
SCCM	Systems Center Configuration Manager
UAT	User Acceptance Testing
VA	Department of Veterans Affairs
VACS	VistA Consolidated Servers
VDD	Version Description Document
VDL	VA Software Document Library
VIP	Veteran-focused Integrated Process
VistA	Veterans Health Information System and Technology Architecture
VM	Virtual Machine
VS	VistA Scheduling
VSE	VistA Scheduling Enhancements